

**Claims**

- 5           1. Use of a composition comprising  
            at least one enzyme, said enzyme being dissolved in a solvent, and  
  
            water activity reducing agent, wherein said water activity reducing agent  
            constitutes at least 50 percent by weight of the composition  
  
10           for the preparation of a hair growth inhibitor.
2. The composition according to claim 1, wherein the at least one enzyme is a  
            proteolytic enzyme.
3. The composition according to claim 1, wherein the at least one enzyme is an  
15           enzyme selected from the group of enzymes consisting of trypsin,  
            chymotrypsin, papain, bromelain.
4. The composition according to claim 1, wherein wherein the at least one  
            enzyme is an enzyme selected from the group of enzymes consisting of  
20           trypsin and chymotrypsin.
5. The composition according to claim 1, wherein the at least one enzyme is  
            trypsin.
- 25           6. The composition according to claim 1, wherein the solvent is water.
7. The composition according to any of the preceding claims, wherein the water  
            activity reducing agent is selected from glycerine, sorbitol, saccharose,  
            saline.
- 30           8. The composition according to claim 7, wherein the water activity reducing  
            agent is glycerine.
9. The composition according to any of the preceding claims, wherein the water  
35           activity reducing agent constitutes at least 60 percent by weight of the

composition, such as at least 70 percent by weight of the composition, at least 80 percent by weight of the composition at least 85 percent by weight of the composition, at least 90 percent by weight of the composition, at least 92 percent by weight of the composition, at least 95 percent by weight of the composition, at least 98 percent by weight of the composition

5

10. The composition according to claim 1, said composition further comprising a polymer.

10

11. The composition according to claim 1, wherein the polymer cross-binds the solvent in the composition.

12. The composition according to claim 11, wherein the polymer comprises acrylic acid monomers.

15

13. The composition according to claim 11 or 12, wherein the polymer is an acrylic acid polymer.

20

14. The composition according to claim 1, wherein the polymer is selected from carboxymethylene resins, polyacrylic acid, C10-C30 alkyl propenoate, polymer with propenoic acid, butenoic acid and/or alkyl propenoates, products with propenyl sucrose ether or propenyl 2,2-dihydroxymethyl-1,3-propanediol.

25

15. The composition according to claim 1, wherein the solvent and the enzyme constitutes at the most 20 percent by weight of the composition.

30

16. The composition according to claim 1, wherein the solvent and the enzyme constitutes at the most 15 percent by weight of the composition, such as at the most 10 percent by weight of the composition, such as at the most 5 percent by weight of the composition.

35

17. The composition according to claim 1, wherein the polymer constitutes 0.2 percent by weight of the composition.

- 5 18. The composition according to any of the preceding claims, wherein the polymer constitutes at most 1.5 percent by weight of the composition, such as at most 1 percent by weight of the composition, at most 0.5 percent by weight of the composition at most 0.3 percent by weight of the composition, at most 0.275 percent by weight of the composition, at most 0.25 percent by weight of the composition, at most 0.2 percent by weight of the composition.
- 10 19. The composition according to claim 1, wherein the enzyme (200 F.I.P-U/g) constitutes 2.5 percent by weight of the composition.
- 15 20. The composition according to any of the preceding claims, wherein the enzyme constitutes at least 7.5 percent by weight of the composition, such as at least 6 percent by weight of the composition, at least 5 percent by weight of the composition at least 4 percent by weight of the composition, at least 3 percent by weight of the composition, at least 2.75 percent by weight of the composition, at least 2.5 percent by weight of the composition.
- 20 21. The composition according to any of claims 10-18, said composition further comprising an agent capable of neutralising the polymer.
22. The composition according to claim 21, wherein the agent is dilsopropanolamin.
- 25 23. The composition according to any of the preceding claims, wherein the composition is in the form of a creme, a paste, a gel or a liquid.
24. The composition according to any of the preceding claims, wherein the composition is in the form of a creme, a gel or a paste.
- 30 25. Use of a system comprising
- A first component comprising  
a first composition comprising

at least one enzyme, said enzyme being dissolved in a solvent, and

a water activity reducing agent

5

a second component comprising

a second composition, comprising

at least one enzyme-activating agent and/or

10

at least one anti-inflammatory, penetration-promoting agent and/or

a preservative agent

for the preparation of a hair growth inhibitor.

15

26. The system according to claim 25, wherein the first composition is defined in any of the claims 1-24.

27. The system according to claim 25, wherein the two compositions of the two components of the system are in separate compartments.

20

28. The system according to claim 25, wherein the second composition of the second component of the system comprises the at least one enzyme-activating agent consisting essentially of a solvent.

25

29. The system according to claim 25, wherein the second composition of the second component of the system comprises the at least one enzyme-activating agent consisting essentially of water.

30

30. The system according to claim 25, wherein the second composition of the second component of the system further comprises at least one penetration-promoting, anti-inflammatory agent.

35

31. The system according to claim 25, wherein the second composition of the second component of the system further comprises the at least one

penetration-promoting, anti-inflammatory agent selected from a group of salicylates.

- 5 32. The system according to claim 25, wherein the second composition of the second component of the system further comprises diethylamine salicylate.
33. The system according to claim 25, wherein the second composition of the second component of the system further comprises at least one preservative agent.
- 10 34. The system according to claim 25, wherein the at least one preservative agent of the second composition of the second component of the system is sodium benzoate.
- 15 35. The system according to any of the claims 25-34, wherein the at least one enzyme-activating agent of the second composition of the second component of the system constitutes 95 percent by weight of the second component.
- 20 36. The system according to any of the claims 25-34, wherein the at least one enzyme-activating agent of the second composition of the second component of the system constitutes 90 percent by weight of said second composition of the second component of the system, such as at least 80 percent by weight of said second composition of the second component, such as at least 70 percent by weight of said second composition of the second component of the system, such as at least 60 percent by weight of said second composition of the second component of the system, such as at least 50 percent by weight of said second composition of the second component of the system, such as at least 40 percent by weight of said second composition of the second component of the system, such as at least 30 percent by weight of said second composition of the second component of the system, such as at least 30 percent by weight of said second composition of the second component of the system.
- 25
- 30

37. The system according to any of the claims 25-34, wherein the at least one penetration-promoting, anti-inflammatory agent of the second composition of the second component of the system constitutes 2 percent by weight of said second composition of the second component of the system.

5

38. The system according to any of the claims 25-34, wherein the at least one penetration-promoting, anti-inflammatory agent of the second composition of the second component of the system constitutes 3 percent by weight of said second composition of the second component of the system, such as at least 4 percent by weight of said second composition of the second component of the system, such as at least 5 percent by weight of said second composition of the second component of the system.

10

39. The system according to any of the claims 25-38, wherein the at least one preservative agent of the second composition of the second component of the system constitutes 1 percent by weight of said second composition of the second component of the system.

15

40. The system according to any of the claims 25-38, wherein the at least one preservative agent of the second composition of the second component of the system constitutes 0.8 percent by weight of said second composition of the second component of the system, such as at least 0.5 percent by weight of said second composition of the second component of the system, such as at least 0.3 percent by weight of said second composition of the second component of the system, such as at least 0.1 percent by weight of said second composition of the second component of the system.

20

25

41. A method for inhibiting hair growth, said method comprising the steps of

30

- a. applying the composition as defined in claims 2-24 or the first composition of a system as defined in claims 25-40 to the body parts having accessible hair follicles
- b. allowing said composition to access at least part of the accessible hair follicles thereby inhibiting hair growth.

35

42. The method according to claim 41 further comprising a step for

- a. applying the second composition of the second component of the system as defined in any of the claims 25-40 subsequent to application of the composition as defined in claims 1-24 or the first composition of the first component of the system as defined in claims 25-40.

43. The method according to claims 41 and 42, wherein the composition as defined in claims 1-24 or the composition of the first component of the system as defined in claims 25-40 is allowed to access the accessible hair follicles for a period in the range of 1-20 min.

44. The method according to claim 42, wherein the second composition of the second component of the system as defined in claims 25-40 further is allowed to access the accessible hair follicles for a period in the range of 5-6 hrs subsequent to the application of the first composition of the first component of the system as defined in claims 25 and 26 or the composition as defined in claims 1-24.

45. A method for the preparation of a hair growth inhibitor

- a. providing at least one enzyme, at least one solvent, and at least one water activity reducing agent, and  
b. mixing the at least one enzyme, the at least one solvent, and the at least one water activity reducing agent in a manner such that the water activity reducing agent constitutes at least 50 percent weight of the hair growth inhibitor.

46. The method according to claim 45, wherein the at least one enzyme, the at least one solvent, and the at least one water activity reducing agent are as defined in any of the claims 1-24.

47. A composition for inhibiting hair growth comprising

at least one enzyme, said enzyme being dissolved in a solvent, and

water activity reducing agent, wherein said water activity reducing agent constitutes at least 70 percent by weight of the composition.

5 48. The composition according to claim 47, wherein the at least one enzyme is a proteolytic enzyme.

49. The composition according to claim 47, wherein the at least one enzyme is an enzyme selected from the group of enzymes consisting of trypsin, papain, bromelain.

10 50. The composition according to claim 47, wherein wherein the at least one enzyme is an enzyme selected from the group of enzymes consisting of trypsin and chymotrypsin.

15 51. The composition according to claim 47, wherein the at least one enzyme is trypsin.

52. The composition according to claim 47, wherein the solvent is water.

20 53. The composition according to any of the preceding claims, wherein the water activity reducing agent is selected from glycerine, sorbitol, saccharose, saline.

25 54. The composition according to claim 7, wherein the water activity reducing agent is glycerine.

30 55. The composition according to any of the preceding claims, wherein the water activity reducing agent constitutes at least 80 percent by weight of the composition at least 85 percent by weight of the composition, at least 90 percent by weight of the composition, at least 92 percent by weight of the composition, at least 95 percent by weight of the composition, at least 98 percent by weight of the composition

35 56. The composition according to claim 47, said composition further comprising a polymer.

57. The composition according to claim 47, wherein the polymer cross-binds the solvent in the composition.
- 5 58. The composition according to claim 57, wherein the polymer comprises acrylic acid monomers.
59. The composition according to claim 57 or 58, wherein the polymer is an acrylic acid polymer.
- 10 60. The composition according to claim 47, wherein the polymer is selected from carboxymethylene resins, polyacrylic acid, C10-C30 alkyl propenoate, polymer with propenoic acid, butenoic acid and/or alkyl propenoates, products with propenyl sucrose ether or propenyl 2,2-dihydroxymethyl-1,3-propanediol.
- 15 61. The composition according to claim 1, wherein the solvent and the enzyme constitutes at the most 20 percent by weight of the composition.
- 20 62. The composition according to claim 47, wherein the solvent and the enzyme constitutes at the most 15 percent by weight of the composition, such as at the most 10 percent by weight of the composition, such as at the most 5 percent by weight of the composition.
- 25 63. The composition according to claim 47, wherein the polymer constitutes 0.2 percent by weight of the composition.
- 30 64. The composition according to any of the preceding claims, wherein the polymer constitutes at most 1.5 percent by weight of the composition, such as at most 1 percent by weight of the composition, at most 0.5 percent by weight of the composition at most 0.3 percent by weight of the composition, at most 0.275 percent by weight of the composition, at most 0.25 percent by weight of the composition, at most 0.2 percent by weight of the composition.

65. The composition according to claim 47, wherein the enzyme (200 F.I.P-U/g) constitutes 2.5 percent by weight of the composition.

5 66. The composition according to any of the preceding claims, wherein the enzyme constitutes at least 7.5 percent by weight of the composition, such as at least 6 percent by weight of the composition, at least 5 percent by weight of the composition at least 4 percent by weight of the composition, at least 3 percent by weight of the composition, at least 2.75 percent by weight of the composition, at least 2.5 percent by weight of the composition.

10 67. The composition according to any of claims 47-66, said composition further comprising an agent capable of neutralising the polymer.

15 68. The composition according to claim 67, wherein the agent is diisopropanolamin.

69. The composition according to any of the preceding claims, wherein the composition is in the form of a creme, a paste, a gel or a liquid.

20 70. The composition according to any of the preceding claims, wherein the composition is in the form of a creme, a gel or a paste.

71. A system for inhibiting hair growth comprising

25 A first component comprising  
a first composition comprising

at least one enzyme, said enzyme being dissolved in a solvent, and

30 a water activity reducing agent

a second component comprising  
a second composition, comprising

35 at least one enzyme-activating agent and/or

at least one anti-inflammatory, penetration-promoting agent and/or

5 a preservative agent.

72. The system according to claim 71, wherein the first composition is defined in any of the claims 48-70.

10 73. The system according to claim 71, wherein the two compositions of the two components of the system are in separate compartments.

74. The system according to claim 71, wherein the second composition of the second component of the system comprises the at least one enzyme-  
15 activating agent consisting essentially of a solvent.

75. The system according to claim 71, wherein the second composition of the second component of the system comprises the at least one enzyme-  
20 activating agent consisting essentially of water.

76. The system according to claim 71, wherein the second composition of the second component of the system further comprises at least one penetration-  
25 promoting, anti-inflammatory agent.

77. The system according to claim 71, wherein the second composition of the second component of the system further comprises the at least one  
30 penetration-promoting, anti-inflammatory agent selected from a group of salicylates.

78. The system according to claim 71, wherein the second composition of the second component of the system further comprises diethylamine salicylate.

79. The system according to claim 71, wherein the second composition of the second component of the system further comprises at least one preservative  
35 agent.

80. The system according to claim 71, wherein the at least one preservative agent of the second composition of the second component of the system is sodium benzoate.

5

81. The system according to any of the claims 71-80, wherein the at least one enzyme-activating agent of the second composition of the second component of the system constitutes 95 percent by weight of the second component.

10

82. The system according to any of the claims 71-80, wherein the at least one enzyme-activating agent of the second composition of the second component of the system constitutes 90 percent by weight of said second composition of the second component of the system, such as at least 80 percent by weight of said second composition of the second component, such as at least 70 percent by weight of said second composition of the second component of the system, such as at least 60 percent by weight of said second composition of the second component of the system, such as at least 50 percent by weight of said second composition of the second component of the system, such as at least 40 percent by weight of said second composition of the second component of the system, such as at least 30 percent by weight of said second composition of the second component of the system, such as at least 30 percent by weight of said second composition of the second component of the system.

15

20

25

83. The system according to any of the claims 71-80, wherein the at least one penetration-promoting, anti-inflammatory agent of the second composition of the second component of the system constitutes 2 percent by weight of said second composition of the second component of the system.

30

84. The system according to any of the claims 71-80, wherein the at least one penetration-promoting, anti-inflammatory agent of the second composition of the second component of the system constitutes 3 percent by weight of said second composition of the second component of the system, such as at least 4 percent by weight of said second composition of the second component of

35

the system, such as at least 5 percent by weight of said second composition of the second component of the system.

5 85. The system according to any of the claims 71-84, wherein the at least one preservative agent of the second composition of the second component of the system constitutes 1 percent by weight of said second composition of the second component of the system.

10 86. The system according to any of the claims 71-84, wherein the at least one preservative agent of the second composition of the second component of the system constitutes 0.8 percent by weight of said second composition of the second component of the system, such as at least 0.5 percent by weight of said second composition of the second component of the system, such as  
15 at least 0.3 percent by weight of said second composition of the second component of the system, such as at least 0.1 percent by weight of said second composition of the second component of the system.